

## **CLAIMS**

- 5     1. A network architecture, comprising:
- a server farm comprised of a plurality of systems-on-a-chip;
- each system-on-a-chip implementing one or more integrated standard
- or other network interfaces; and
- an interconnect scheme for connecting said system-on-a-chip via said
- 10   network interfaces, wherein said interconnect scheme eliminates physical
- interfaces that are otherwise required to establish communications between
- servers in a server farm.
2. The network architecture of Claim 1, said interconnect scheme comprising
- 15   a point-to-point scheme.
3. The network architecture of Claim 1, said standard network interface
- comprising Ethernet.
4. The network architecture of Claim 1, said interconnect scheme comprising
- 20   a back plane comprising a plurality of connectors.
5. The network architecture of Claim 1, said systems-on-a-chip being
- interconnected to define two or more PLEX arrays.
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6. A data communications network, comprising:

a standard networking component for implementing a standard data communications network;

a plurality of systems-on-a-chip that each comprise at least one processor and that each provide one or more standard network interfaces;

5 a plurality of servers, each of said servers defined by one or more systems-on-a-chip; and

a plurality of servers connected by said standard data communications network to define a server farm; and

10 an interconnect scheme for connecting said systems-on-a-chip via said network interfaces, wherein said interconnect scheme eliminates physical interfaces that are otherwise required to establish communications between servers in said server farm.

15 7. The network of Claim 6, said interconnect scheme comprising a point-to-point scheme.

8. The network of Claim 6, said standard network interface comprising Ethernet.

20 9. The network of Claim 6, said interconnect scheme comprising a back plane comprising a plurality of connectors.

10. The network of Claim 6, said systems-on-a-chip being interconnected to define two or more PLEX arrays.

25 11. A network interconnection method, comprising the steps of:

providing a server farm comprised of a plurality of systems-on-a-chip;  
each system-on-a-chip implementing one or more integrated standard  
or other network interfaces; and

providing an interconnect scheme for connecting said system-on-a-chip  
5 via said network interfaces, wherein said interconnect scheme eliminates  
physical interfaces that are otherwise required to establish communications  
between servers in a server farm.

12. The method of Claim 11, said interconnect scheme comprising a point-to-  
10 point scheme.

13. The method of Claim 11, said standard network interface comprising  
Ethernet.

14. The method of Claim 11, said interconnect scheme comprising a back  
15 plane comprising a plurality of connectors.

15. The method of Claim 11, said systems-on-a-chip being interconnected to  
20 define two or more PLEX arrays.

16. A data communications method, comprising the steps of:

implementing a standard data communications network with a standard  
networking component;

25 providing a plurality of systems-on-a-chip that each comprise at least  
one processor and that each provide one or more standard network  
interfaces;

providing a plurality of servers, each of said servers defined by one or more systems-on-a-chip; and

connecting a plurality of said servers by said standard data communications network to define a server farm.

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17. The method of Claim 16, further comprising:

an interconnect scheme for connecting said systems-on-a-chip via said network interfaces, wherein said interconnect scheme eliminates physical interfaces that are otherwise required to establish communications between servers in said server farm.

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18. The method of Claim 17, said interconnect scheme comprising a point-to-point scheme.

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19. The method architecture of Claim 16, said standard network interface comprising Ethernet.

20. The method architecture of Claim 17, said interconnect scheme comprising a back plane comprising a plurality of connectors.

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21. The method architecture of Claim 16, said systems-on-a-chip being interconnected to define two or more PLEX arrays.